CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (canceled).

Claim 21 (previously presented). A method of monitoring an actuator connected in an actuator circuit, the method which comprises:

measuring a first electrical current flowing through the actuator;

measuring a second electrical current flowing in the actuator circuit before or after the actuator;

comparing the first and second electrical currents for detection of a fault;

integrating the first current over a given period of time resulting in a charge value;

measuring a voltage in the actuator circuit; and

generating a diagnostic signal in dependence on the voltage in the actuator circuit, the diagnostic signal assuming any of at least four mutually different values respectively indicating a ground short circuit, a short circuit to a supply voltage, a short across the actuator, or an error-free state in dependence on an outcome of the comparing step and the charge value.

Claim 22 (previously presented). The monitoring method according to claim 21, wherein the diagnostic signal is configured to assume the at least four mutually different values in dependence on the outcome of comparing the measured first and second currents, to distinguish between a voltage short circuit to a first voltage and a voltage short circuit to a second voltage.

Claim 23 (original). The monitoring method according to claim 21, which comprises measuring a voltage increase and generating the diagnostic signal in dependence on the voltage increase.

Claim 24 (original). The monitoring method according to claim 21, which comprises measuring the voltage in the actuator circuit during a charging process, and generating the diagnostic signal in dependence on the measured voltage.

Claim 25 (original). The monitoring method according to claim 21, which comprises measuring the voltage in the actuator circuit between a charging process and a discharging process, and generating the diagnostic signal in dependence on the measured voltage.

Claim 26 (original). The monitoring method according to claim 21, which comprises measuring the first and second currents flowing in the actuator circuit at two ground-side measuring points.

Claim 27 (original). The monitoring method according to claim 21, which comprises measuring the first and second currents flowing in the actuator circuit at two voltage-side measuring points.

Claim 28 (original). The monitoring method according to claim 21, which comprises measuring one of the first and second currents at a ground-side measuring point and measuring one of the first and second currents at a voltage-side measuring point.

Claim 29 (previously presented). A driver circuit for an actuator, comprising:

an actuator circuit for charging and discharging the actuator, wherein the actuator is connected in said actuator circuit;

a transformer having a primary winding and a secondary winding, said secondary winding connected in said actuator circuit;

a first measuring device for measuring a first electrical current flowing through the actuator, said first measuring device having a first measurement resistor connected in series with the actuator;

a second measuring device for measuring a second electrical current flowing in said actuator circuit before or after the actuator, said second measuring device having a second measurement resistor connected in series with said secondary winding of said transformer;

a third measuring device for measuring an electrical voltage in said actuator circuit during a charging process;

a comparator unit connected to said first, second, and third measuring devices, said comparator unit being configured to effect a comparison between the first and second electrical currents, and to generate a diagnostic signal in dependence on the comparison and in dependence on the electrical voltage

measured by said third measuring device, the diagnostic signal taking on one of at least three different values depending on the comparison between the measured currents, in order to distinguish between a ground short circuit, a short circuit to a supply voltage, and an error-free state, respectively.

Claim 30 (canceled).

Claim 31 (original). The driver circuit according to claim 29, wherein said actuator circuit has a first circuit branch and a parallel second circuit branch, said first circuit branch containing a discharge switch and carrying the electrical current during a discharging process, and said second circuit branch containing a diode and carrying the electrical current during a charging process.

Claim 32 (canceled).

Claim 33 (canceled).

Claim 34 (previously presented). The driver circuit according to claim 31, wherein said second measurement resistor is connected in the second circuit branch.

Claim 35 (canceled).

Claim 36 (original). The driver circuit according to claim 29, wherein said first measuring device and said second measuring device are connected on a ground side of said actuator circuit.

Claim 37 (original). The driver circuit according to claim 29, wherein said first measuring device and said second measuring device are connected on a voltage side of said actuator circuit.

Claim 38 (original). The driver circuit according to claim 29, wherein one of said first and second measuring devices is connected on a ground side of said actuator circuit and one of said first and second measuring devices is connected on a voltage side thereof.

Claim 39 (original). The driver circuit according to claim 29, wherein at least one of said first measuring device and said second measuring device is decoupled from a circuit input.

Claim 40 (currently amended). The method according to claim 21 [[29]], which further comprises using the charge value for distinguishing between a short on a positive terminal of the actuator and a negative terminal of the actuator.

Claim 41 (new). A method of monitoring an actuator connected in an actuator circuit, the method which comprises:

measuring a first electrical current flowing through the actuator;

measuring a second electrical current flowing in the actuator circuit through a secondary winding of a transformer;

comparing the first and second electrical currents for detection of a fault;

integrating the first current over a given period of time resulting in a charge value;

measuring a voltage in the actuator circuit; and

generating a diagnostic signal in dependence on the voltage in the actuator circuit, the diagnostic signal assuming any of at least four mutually different values respectively indicating a ground short circuit, a short circuit to a supply voltage, a short across the actuator, or an error-free state in dependence on an outcome of the comparing step and the charge value.